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ABSTRACT

During the transition period from secondary school to university many students experience stress associated with academic concerns and encounter difficulties adjusting to an environment that presents new academic and social demands. First year university students (N=170) attending an Australian university participated in the study. Students' level of academic stress was measured and the coping strategies employed by students were evaluated. A greater level of academic stress was experienced by students at the beginning of the semester, during the transition period rather than at the end of the semester, prior to the examination period. It was concluded that it is important to provide effective and timely assistance to students during the transition period from school to university to assist them with the management of their stress associated with academic concerns. A positive relationship between academic stress and the use of nonproductive coping strategies was also revealed, suggesting that teaching the use of productive strategies and the avoidance of nonproductive strategies could help young people both cope with stress and reduce it. (Contains 4 tables and 23 references.) (Author/MKA)

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Who needs help and when: coping with the transition from school to university

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Who needs help and when: coping with
transition from school to university

During the transition period from secondary school to university many students experience stress associated with academic concerns and encounter difficulties adjusting to an environment that presents new academic and social demands. First year university students attending an Australian University participated in the present study. Students' level of academic stress across first semester was measured and the coping strategies employed by students were evaluated. A greater level of academic stress was experienced by students at the beginning of semester, during the transition period than at the end of semester, prior to the examination period. It was concluded that it is important to provide effective and timely assistance to students during the transition period from school to university to assist them with the management of their stress associated with academic concerns. A positive relationship between academic stress and the use of non-productive coping strategies was also revealed suggesting that teaching the use of productive strategies and the avoidance of non-productive strategies could help young people both to cope with stress and to reduce it.

Some students adapt to tertiary education without concern while other students experience stress and anxiety which interferes with their learning and academic progress (Clifton, 1987; Gerdes & Mallinkrodt, 1994; Simmonds, 1987). Stress and anxiety for students is often associated with academic expectation and performance, and with social factors, such as loneliness, financial problems and limited time available for their family and friends (Abouserie, 1994; Heins, Fahey & Leiden, 1984).

The transition from school to university involves adjustment to an environment that presents new academic and social demands and students often feel unable to cope with the new challenges and tasks which confront them (Compas, Wagner, Slavin & Vannatta, 1986; Farnill & Robertson,1991). If students recognise when they are stressed and are aware of the strategies they can employ to manage their stress and anxiety, their coping abilities can be

enhanced and their repertoire of coping strategies expanded (Frydenberg, 1997).

> "The first few weeks of tertiary study is a time of high vulnerability with many new demands, when old supports have been left behind and new ones not yet generated" (Farnill & Robertson, 1991, p. 179).

According to Gerdes and Mallinkrodt (1994) programs need to contribute to overall student retention and well being: to foster both social and academic integration, include support systems, contact with faculty staff and provide academic direction.

Transitions involve change, loss or disruption of a prior structure in a person's life and are considered to be potentially stressful (Compas et al. 1986; Hobfoll, 1989). Most students entering university for the first time come from the nurturing environment of a school where support systems are generally available, where students are given constant encouragement and direction from staff, and where stable friendships and student/teacher relationships have developed (Clifton, 1987). It is understandable that many students may feel vulnerable and unable to cope and consequently experience stress during the period of transition from school to university, as they attempt to manage the overwhelming demands associated with a new beginning.

Stress is defined as a "particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well being" (Lazarus & Folkman, 1984,

p.19). The importance an individual places on a particular aspect of their lives and the perceived demands of that event per se, is what determines the amount of stress experienced. Consequently, individuals react to the same stressor in different ways. When a transaction between the environment and the person is appraised as stressful, coping processes regulate the unstable relationship between the person and the environment.

Coping is a process used by an individual to manage specific external or internal demands that are appraised as taxing or exceeding their personal and environmental resources (Lazarus & Folkman, 1984), a process whereby a combination of cognitive and behavioural strategies are utilised to deal with everyday demands (Frydenberg, 1997). According to Hobfoll (1988) coping is defined as behaviours that are employed for the purpose of reducing stress by minimising loss and maximising gain of resources. Furthermore, the coping strategies used by an individual in a stressful situation will be influenced not only by the objective and perceived nature of the situation but also by individual characteristics such as coping styles, anxiety, depression and self efficacy (Zeidner, 1994); as well as gender, socio-economic status and ethnicity (Frydenberg & Lewis, 1993; Lazarus & Folkman, 1984; Zeidner, 1994).

According to Frydenberg (1997) individuals are generally consistent in their coping across situations and have a set of coping strategies upon which to rely. Self report measures in the form of questionnaires are the most commonly used instrument for measuring coping whereby respondents are asked to identify stressful situations and indicate the ways in which they deal with their stresses

(Frydenberg, 1997). Since coping is a complex phenomenon which is influenced by individual characteristics and situational determinants the use of an instrument based on sound theoretical underpinnings and which has a valid conceptual framework of coping dimensions is important.

Folkman and Lazarus (1984) conceptualise coping as a process which involves two major functions, problem-focused coping and emotion-focused coping. Problem-focused coping is concerned with task orientation and changing the unstable relationship between the person and environment, and dominates when a stressful situation is appraised as controllable by action. Emotion-focused coping is person oriented and concerned with changing the meaning of the situation and lessening emotional distress and dominates when a stressful situation is appraised as unmanageable and difficult to change (Endler & Parker, 1990; Lazarus, 1990; Lazarus & Folkman, 1984). Diverging from the problem-focused and emotion-focused dichotomy, Endler and Parker (1990) proposed a third coping style referred to as avoidance whereby an individual seeks social diversion or distraction from the task.

Folkman and Lazarus (1985) assessed emotion and coping of undergraduate students at three stages of a midterm examination and found that problem-focused and emotion-focused coping strategies were represented at each stage. Furthermore, the use of some coping strategies significantly increased or decreased at each stage, leading the researchers to conclude that students' coping is a dynamic phenomenon that changes over time.

Based on the work by Lazarus (1966, 1990), Frydenberg and Lewis (1996) in their work with adolescents categorised coping into three coping styles including a productive and non-productive style. The productive style is comprised of strategies that utilise the support of others whether that be professional, social or spiritual. The non-productive strategies are associated with avoidance strategies and an inability to cope. Expanding on their research Frydenberg and Lewis (1997) in their work with adults identified four coping styles which included dealing with the problem, non-productive coping, optimism and sharing. It has generally been found that most coping strategies reduce stress yet certain coping strategies particularly those associated with non-productive coping often increase stress levels. Using non-productive strategies may be more practical in certain situations even though increased stress levels are experienced by an individual. However, more effective strategies can be learned by an individual to actually reduce stress if confronted by the same stressful situation at another time(Chan, 1998).

Gender differences in coping have been consistently reported in the research literature. Adolescents attempt to solve the problem irrespective of their gender. Females are more likely to talk to friends and use passive coping strategies more than males. Males are more private, aggressive, more involved in physical recreation and are more likely to ask for advice (Frydenberg & Lewis 1991, 1993). These differences are supported in the literature on adult coping. Females use social and spiritual support, tension reduction and self protective strategies more than males, while males are more likely to keep

problems to themselves and use humour to cope with their concerns (Frydyenberg & Lewis 1997)

University students experience stress associated with academic concerns and adjustment to a new environment. Generally, students in a tertiary setting are seeking to meet the expectations of themselves or those of others and there is the potential threat of failure to perform according to expectations.

University students are most affected by stress associated with their studies (Abouserie, 1994). Examinations and their results are the most important stressors followed by too much to do, amount to learn and need to do well, respectively. Social related stressors such as financial problems and lack of time for family and friends are also important stressors, but less stressful than academic variables. Female students report significantly higher academic stress than males (Abouserie, 1994).

Undergraduate students use significantly more problem-focused coping than either emotion-focused coping or avoidance. However, students who experience greater academic stress show an increase in emotion-focused coping and females use more emotion-focused coping and avoidance than males (Endler, Kantor & Parker 1994; Zeidner, 1994) In a study of undergraduate students preparing for an examEndler, Kantor and Parker (1994) found no significant gender differences in coping, but students who use problem-focused coping received better grades than those who did not.

When considering academic stress of university students much of the previous research has focused on measuring stress and evaluating coping styles and

strategies prior to or during the university examination period. However, there is evidence that students also experience stress in the transition period from secondary school to university.

Compas et al. (1986) investigated the transition from high school to college and assessed students' stressful life events, perceived social support and psychological symptoms. As a result of the investigation Compas et al. (1986) proposed that early intervention to deal with the transition period would be beneficial. Furthermore, it was evident that two weeks after the commencement of studies was the time of greatest vulnerability for students, a view consistent with that of Farnill and Robertson (1991) who proposed that it was important to understand the stress of transition and the development of students during the transition period.

The aim of the present study of first year university students attending an Australian University, was to identify academic stressors and to determine whether there was an increase or decrease in students academic stress at a particular time during first semester and to examine differences in coping strategies utilised to deal with general and academic concerns. The effect of gender on academic stress and coping was also investigated. It was anticipated that results would be useful in providing effective assistance to students in coping with academic concerns particularly during the transition period from secondary school to university.

Data were collected by way of questionnaires administered on three occasions during first semester. The questionnaires identified academic stressors and

associated levels of stress and coping styles and strategies used by the students. Coping was assessed using the Coping Scale for Adults (Frydenberg & Lewis, 1997) a newly developed instrument designed for use in the Australian context. It was expected that students would report greater academic stress at the beginning of semester than at the end of semester and there would be differences in both the experience of stress and the strategies for coping used by male students and females students

Method

Participants

The sample consisted of 170 first year university students at Time 1, 127 at Time 2 and 89 at Time 3 (M = 18.8 years; SD = 1.98). Students were enrolled in the Faculties of Health and Behavioural Science, Education and Law. Eighty percent of students were female, 57% of students had attended a private school prior to entering university, and for 95% of students English was their first language.

Instruments

Academic stress was assessed using the Academic Stress Questionnaire (ASQ) (Abouserie, 1994) which includes 34 potential causes of stress concerned with students' learning, examinations and results, conflict with lecturers and situational variables such as accommodation, financial problems, family crisis and conflict with peers. Students indicated the degree of stress experienced in response to each item on a scale of 0 – 7, with 0 indicating 'no stress' and 7 indicating 'extreme stress'. Overall stress values were categorised as: 0 – no

stress; 1-100 – low stress; 101 – 150 moderate stress; 151 – 200 serious stress; over 200 – extreme stress.

Coping was measured using the Coping Scale for Adults (CSA) (Frydenberg & Lewis, 1997) which is a self report measure and contains 74 items which assess 18 distinct coping strategies, three items comprising an optional 'not cope' scale and an open ended response question asking the respondent to indicate any coping behaviours undertaken other than those presented in the CSA scale. Each item describes a particular response to a concern and respondents rate how often the response is used on a five point Likert scale: 1 almost none of the time or never; 2 a few times; 3 sometimes; 4 many times; 5 almost every time. A General Form of the instrument assesses how an individual copes with concerns in general. A Specific Form enables the measurement of responses to a self nominated or administrator-nominated concern. The alphas range from .74 to .94.

The 19 distinct coping strategies are categorised into four coping styles. 'Dealing with the Problem' includes strategies associated with focus on solving the problem, work hard, improve relationships, seek relaxing diversions, physical recreation, protect self, and humour. 'Non-Productive Coping' includes strategies such as worry, wishful thinking, tension reduction, ignore the problem, self blame, keep to self, and not cope. The coping styles 'Optimism' includes strategies associated with wishful thinking, seek spiritual support, focus on the positive and seek relaxing diversions. 'Sharing' as a

coping style is characterised by strategies which focus on sharing the problems with others such as seeking professional help, social action, seeking social support and not keeping problem to oneself.

Procedure

Questionnaires were distributed to students on three occasions during first semester. At Time 1 which was two weeks after commencement of first semester, students completed the CSA (General Form), the ASQ and CSA (Specific Form) At Time 2, two weeks after the mid semester break students completed the ASQ and the CSA (Specific Form); and at Time 3, two weeks before the examination period students completed the ASQ and the CSA (Specific Form). Questionnaires completed on each of the three occasions were matched by students' codes.

The CSA (General form) (Frydenberg & Lewis, 1997) was administered on one occasion to determine students' general coping. The CSA (Specific Form) (Frydenberg & Lewis 1997) specific to dealing with academic concerns was administered on three occasions so that students general coping could be compared to students' specific coping; and to determine whether students coping specific to academic concerns changed over time and whether is was related to the level of stress. The ASQ (Abouserie, 1994) was administered on three occasions during first semester to determine whether there was an increased or decrease in students' academic stress at a particular time during the semester. Data were analysed using multivariate analysis of variance (MANOVA) and Pearsons's Correlation.

Results

Students reported moderate academic stress at Time 1, Time 2 and Time 3. A repeated measures MANOVA for a time effect indicated that students level of academic stress was significantly greater at Time 1 than at Time 2 and Time 3, $F(2,170)=6.53$, $p<.01$. A between-subjects MANOVA for a gender effect indicated no significant difference in the level of academic stress for males and females. Table 1 includes the mean and standard deviation for students' academic stress at Time 1, Time 2 and Time 3.

INSERT TABLE 1

Stressors which students reported to be associated with the most academic stress and items reported to be associated with the least academic stress were consistent across Time 1, Time 2 and Time 3 (Refer Table 2).

INSERT TABLE 2

Students utilised all four coping styles when dealing with general and academic concerns. 'Dealing with the Problem' was used most by students followed by 'Non-productive Coping', 'Optimism' and 'Sharing'. A between-subjects MANOVA revealed a significant gender difference on seven coping strategies used to deal with general concerns. Analysis for a gender effect on coping strategies used by students when dealing with academic concerns revealed no significant difference. A repeated measures MANOVA for a time effect on coping strategies used to deal with academic concerns across the semester revealed a significant difference in the use of two coping strategies. Students use of 'seek professional help' decreased and ' work hard' increased from Time 1 to Time 2 and from Time 2 to Time 3 (Refer Table 3).

INSERT TABLE 3

Pearson's correlation revealed a significant positive relationship between academic stress and coping strategies associated with 'non-productive coping' and 'sharing' at Time 1, Time 2 and Time 3 and 'optimism' at Time 3 due to a high correlation between academic stress and the coping strategy 'seek spiritual support'. Results revealed a negative correlation between academic stress and 'work hard' at Time 2. Significant correlations among key variables are presented in Table 4.

INSERT TABLE 4

In summary, students reported significantly more academic stress at Time 1; there was a significant difference between Time 1, Time 2 and Time 3 in students use of 'seek professional help' and 'work hard' coping strategies when dealing with academic concerns. Significant gender differences were revealed in the students use of coping strategies when dealing with general concerns. A significant positive relationship was also revealed between academic stress and 'Non productive coping', academic stress and 'Optimism', and academic stress and 'Sharing'.

Discussion

Students reported a greater level of academic stress at the beginning of semester than at the end of semester. That is, the greater stress was experienced during the transition period from secondary school to university than at the end of semester prior to the examination period.

The academic stressors which students considered to be associated with the most stress were consistent across the semester and included those also identified by students in the study by Abouserie (1994). Although females reported greater academic stress overall, males reported more stress associated with financial problems, conflict with lecturers, amount to learn, boring classes and loneliness. Abouserie (1994) also found that females reported greater academic stress than males.

Males and females utilised all four coping styles when dealing with general and academic concerns however gender differences were indicated in the use of particular coping strategies, a finding consistent with Frydenberg and Lewis (1991, 1996) and Zeidner (1994). Females used significantly more coping strategies associated with 'seek social support', wishful thinking', 'improve relationships', 'work hard,', 'tension reduction' and 'not cope' than males. Males used significantly more 'keep to self' than females. Gender differences were also found in students' use of coping strategies when dealing with academic concerns but these differences were not significant, a finding consistent with Endler, Kantor and Parker (1994). In fact there was a diminution of gender differences across the semester when dealing with academic concerns. The diminution of gender differences may indicate that both male and female students become oriented into a 'university culture' and that when they experience academic stress they cope in much the same way. However, as there were relatively few male participants in this study this finding needs to be further explored

During the semester students became more industrious and at the same time turned to professionals such as lecturers or counsellors less. Across the semester there was an increased use as well as a decreased use of two of the 19 coping strategies. 'Seek professional help' significantly decreased and 'work hard' significantly increased. Equally, it may be that the period of transition, at the beginning of semester is a time when students look to 'professional' others to help them cope and as they progress through the semester they become more independent and adopt a more problem-focused orientation as they begin to work hard.

The relationship between academic stress and coping strategies on each occasion was more striking. At Time 1, Time 2 and Time 3 a significant positive relationship between academic stress and 'non-productive coping' was revealed. This finding suggests that the greater the academic stress and the more students use self blame, wishful thinking, worry, tension reduction, ignore the problem and not cope to deal with academic concerns. However, the strength of the relationship weakened by Time 3. At Time 1, Time 2 and Time 3 a significant relationship was also found between academic stress and 'sharing'. This relationship strengthened from Time 1 to Time 2 and from Time 2 to Time 3 which suggests that as students adjust to their new environment they begin to share their concerns with others rather than keeping their concerns to themselves. This finding may also explain the weakened relationship between academic stress and 'non productive coping' at Time 3. Through sharing their academic concerns the students were able to reduce their

use of 'non-productive coping' strategies relative to dealing with academic concerns.

At Time 3 a significant positive relationship between academic stress and 'optimism' was also revealed due to a strong correlation between academic stress and the coping strategy ' seek spiritual support' which suggests that with greater academic stress prior to the examination period students increase their use of prayer and hope. On none of the three occasions was there a relationship indicated between academic stress and 'dealing with the problem'. However, at Time 2 a significant negative relationship was revealed between academic stress and the coping strategy 'work hard' which suggests that at mid semester students may be more relaxed.

Based on the significant relationship between academic stress and non-productive coping and the difference across time in the use of 'seek professional help' and 'work hard', there is evidence of a trend in student coping with academic concerns. The academic stressors reported by students to be associated with the most stress were consistent on each of the three occasions. However, throughout the semester students employed non-productive coping strategies in relation to dealing with academic stress. It may be that using such strategies alleviates some of the emotional distress associated with the letting go of the connections to people and places that up until then defined who the students are, namely their school environment and associated support systems, and the student/teacher relationships. The university system and environment may be too overwhelming initially to permit effective

employment of problem-focused coping to change the relationship between the individuals and their environment. However, as the semester continued students adopted a sharing coping style which assisted them in building up their resources.

The present study suggests that if students are to be helped in coping with academic stress during the transition period between secondary school and university they are to be encouraged to use less non-productive coping strategies in relation to academic concerns and accordingly they could be helped by being given advice and support directed at helping them to adopt problem-focused coping strategies. Help for the students would be most effective if given shortly prior to and immediately following the commencement of their first academic semester. Such timely intervention may encourage the students to become more self reliant more quickly and thus reduce their level of academic stress.

Future research could examine students level of academic stress both mid-year and year end which could help in determining the priority to be given to efforts to support and assist students in the transition period as compared with other times during the academic year. Furthermore, a study of a control group of students to whom support and assistance is given during the transition period as compared with a group who did not receive such support should assist in not only determining the value of such a program but also assist in determining the most effective form of such a program.

Students participating in this study experienced stress associated with academic concerns during the transition period and they adopted various coping strategies to deal with such concerns. If effective and timely assistance is provided to students prior to and/or during this period they will become aware of strategies which they can employ to assist with the management of academic stress and learn about and understand their own coping. This should lead to an improvement in overall student retention and student well being.

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Table 1
Mean and Standard Deviation for Academic Stress at Time 1, Time 2 and Time 3.

Variable	Time	n			Males		Females	
			M	SD	M	SD	M	SD
Academic Stress	1	170	122.70	32.93	116.47	33.31	124.16	32.91
	2	127	116.69	34.16	113.85	32.11	117.15	34.74
	3	89	113.06	37.43	103.57	24.52	113.88	38.49

Table 2
Items associated with the most and least Academic Stress at Time1, Time 2 and Time 3

Time 1 MOST STRESS	Time 2 MOST STRESS	Time 3 MOST STRESS
Forgotten assignment	Examinations & results	Examinations & results
Examinations & results	Studying for exams	Studying for exams
Studying for exams	Forgotten assignment	Need to do well
Unclear assignment	Essays/projects	Essays/projects
Need to do well	Unclear assignment	Too much to do

Time 1 LEAST STRESS	Time 2 LEAST STRESS	Time 3 LEAST STRESS
Home sickness	Problems with housing	Home sickness
Conflict with lecturers	Home sickness	Conflict with lecturers
Sexual problems	Conflict with lecturers	Sexual problems
Problems with housing	Peer pressure	Peer pressure
Peer pressure	Sexual problems	Problems with housing

Table 3
Significant F values for Gender Effect on Coping Strategies used to deal with General Conerns and Significant F values for Time Effect on Coping Strategies used to deal with Academic Concerns

Gender Effect	F Values (1,167)	
Females > Males		
Improve relationships	4.681 *	
Seek social support	24.978 **	
Wishful thinking	6.925 **	
Tension reduction	13.834 **	
Work hard	10.000 **	
Not cope	13.702 **	
Males > Females		
Keep to self	4.553 *	
Time Effect	**F Values (2,168)**	
Seek professional help	4.948 **	decreased over time
Work hard	49.826 **	increased over time

** significant $p < .01$
* significant $p < .05$

Table 4
Correlations among key variable at Time 1, Time 2 and Time 3

Coping Strategies	Time 1 Academic Stress n = 170	Time 2 Academic Stress n=127	Time 3 Academic Stress n=89
Self Blame	.420**	.374**	.457**
Wishful Thinking		.190*	.224*
Worry	.454**	.519*	.437**
Keep to Self	.290**	.281*	.237*
Tension Reduction	.332**	.388*	.320**
Work Hard		-.188*	
Not Cope	.386**	.462**	.502**
Ignore the Problem	.199*	.266*	.241*
Seek Spiritual Support	.197*	.236*	.441**
Coping Styles			
Non-productive coping	.486**	.557**	.386**
Optimism			.259*
Sharing	.176*	.227*	.313**

** Correlation is significant at the .01 level (2 tailed)
* Correlation is significant at the .05 level (2 tailed)